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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/551,651

09/29/2005

Tatsuya Shinkawa

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EXAMINER

SUAREZ, ERNESTO A

ART UNIT

PAPER NUMBER

4114

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/551,651	Applicant(s) SHINKAWA ET AL.	
	Examiner ERNESTO SUAREZ	Art Unit 4114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/29/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
2. Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 2 recites the limitation "the recording medium placement surface" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 5, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by Takashima et al. (US Patent No. 5,913,095).

Regarding claims 1 and 7, Takashima et al. discloses an image forming apparatus comprising a recording medium discharge mechanism provided with a discharge space that is positioned between an original capturing portion (6)

arranged in a device upper portion and a feeding portion (7) arranged in a device lower portion and that opens laterally to a downstream side in a recording medium discharge direction,

Wherein a side wall member (21) is arranged at an open portion of the downstream side in the recording medium discharge direction (inherent the discharge direction is downstream), and

The side wall member is arranged to be capable of moving between an upright state (fig. 8) that closes the open portion (column 6, lines 12-14) and a laid flat state (fig. 9) in which a placement surface (40) for placing a discharged recording medium is extended toward the downstream side in the recording medium discharge direction (fig. 9).

Regarding claim 2, Takashima et al. discloses the recording medium discharge mechanism according to claim 1, wherein the recording medium placement surface (40), which is a bottom surface of the discharge space, is set such that a discharge direction length thereof is shorter than a discharge direction length of a largest recording medium among a plurality of types of recording media used in an image forming apparatus (fig. 9, P is longer than 40).

Regarding claim 5, Takashima et al. discloses the recording medium discharge mechanism according to claim 1, which is configured such that, when a recording medium discharge direction length dimension of a recording medium placement surface of the discharge space is given as L1 (40), a discharge direction length dimension of a largest recording medium among a plurality of types of recording media used in an image forming apparatus is given as L2 (length of P), and an extension length dimension toward a downstream side in the recording medium discharge direction when the side wall member has been put into the laid flat state is given as L3 (21),

$$L3 \leq L2 - L1$$

(See fig. 9)

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima et al (US Patent No. 5,913,095).

Regarding claim 3, Takashima et al. further discloses wherein the side wall member is configured such that when a recording medium has been discharged to the discharge space in the upright state that closes the open portion, the upright state changes to the laid flat state only upon receiving an external force from the recording medium. (Column 6, lines 14-19)

It is well-known in the art that there are two possible ways to extend the side wall member, one is manually, through user or paper force, and the other is through a microcontroller that can detect media size and adjust the side wall member accordingly. The decision on how to extend the side wall member's movement would have been an obvious matter of design choice to one of ordinary skill in the art based on preference and manufacturing costs.

At the time of the invention it would have been an obvious matter of design choice to someone of ordinary skill in the art to modify Takashima et al. side wall member such that when a recording medium has been discharged to the discharge space in the upright state that closes the open portion, the upright

state changes to the laid flat state only upon receiving an external force from the recording medium based on preference and manufacturing costs, a cost reduction in manufacturing resulting by not having to use a microcontroller and making the side wall member user-friendly by avoiding user interference with the side wall when not in use.

4. **Claim 4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima et al. (US Patent No. 5,913,095) in view of Fukai (US Patent No. 6,237,485).

Regarding claim 4 Takashima et al. as modified above discloses wherein the side wall member is configured to go into the laid flat state only when a discharge direction length dimension of the recording medium to undergo image formation in an image-forming portion is longer than a length of a recording medium placement surface of the discharge space. (column 6, lines 14-17)

Takashima et al. does not expressly disclose wherein the side wall member is configured to go into the laid flat state prior to a discharge operation of a recording medium.

Fukai et al. teaches a paper length sensors (49a-c) which inherently are used with a type of microcontroller and are used to measure the recording medium and in response allow the controller to control a moving/actuating device

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to pivot the side wall member into a laid flat state prior to a discharge operation resulting in automated control of the side wall member reducing user interference.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Takashima et al. disclosed side wall member to be configured to go into the laid flat state prior to a discharge operation of a recording medium through the use of length sensors as taught by Fukai, for the purpose of automatically move the side wall in providing proper discharge space for sheets and eliminating user interference while preventing damage to the leading edge of the sheet.

5. **Claim 6** is rejected under 35 U.S.C. 103(a) as being unpatentable over Takashima et al. (US Patent No. 5,913,095) in view of Ishikawa et al. (US Patent No. 4,838,534).

Regarding claim 6, Takashima et al. does not expressly disclose wherein the side wall member is structured using a transparent member or a semitransparent member.

Ishikawa et al. discloses wherein the side wall member (85) is structured using a transparent member or a semitransparent member such that the stack of paper on the table can be observed when it is closed. (column 15, lines 16-19)

At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Takashima et al. side wall member to be structured using a transparent member or a semitransparent member, as taught by Ishikawa et al. such that the stack of paper can be observed when it is closed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ERNESTO SUAREZ whose telephone number is (571)270-5565. The examiner can normally be reached on Monday-Thursday (12pm - 5pm EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Nguyen can be reached on (571)272-6952. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Q. Nguyen/
Supervisory Patent Examiner, Art Unit 4114

/Ernesto Suarez/
Examiner, Art Unit 4114

7/24/2008